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US Department
of Transportation
**Federal Aviation
Administration**

Semiannual Report to Congress on the Effectiveness of the Civil Aviation Security Program

July 1-December 31, 1981

COMPLETED
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Washington, D.C. 20591

April, 1982

Report of the Administrator
of the Federal Aviation Administration
to the United States Congress
pursuant to Section 315 (a)
of the Federal Aviation Act
of 1958

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U.S. Department of Transportation
Federal Aviation Administration

Office of the Administrator

800 Independence Ave., S.W.
Washington, D.C. 20591

April 12, 1982

The Honorable George Bush
President of the Senate
Washington, D.C. 20510

Dear Mr. President:

Enclosed is the Federal Aviation Administration's Semiannual Report to Congress on the Effectiveness of the Civil Aviation Security Program. It covers the period July 1 through December 31, 1981, and is submitted in accordance with section 315(a) of the Federal Aviation Act.

The 7 air carrier hijackings experienced in 1981 were the least for any one year period since 1977. The 7 equal the annual average for the 9 years in which strengthened security measures have been in effect at U.S. airports. This is approximately one-fourth of the annual average of 27 experienced in the 5 years preceding the initiation of the program in 1973.

Internationally there were more hijackings of foreign air carriers during the second half of 1981 than in any equivalent period since 1972. Over 86 percent of these hijackings occurred aboard aircraft which were on domestic flights. In our contacts with the international aviation community we have emphasized the need for effective screening procedures at all airports servicing scheduled air carriers. We have also offered to make our aviation security training programs available to requesting nations.

During the reporting period, extensively revised security regulations became effective. These regulations have tailored required security safeguards to the current threat estimate, the size of aircraft, and the type of operations planned. Further, in line with the level of threat identified, many airport operators have implemented recently authorized greater flexibility in providing law enforcement to support screening systems.

An International Civil Aviation Security Conference will be held in Washington, D.C., in July. Through this forum, just as with the two previous conferences, representatives of many governments and air carriers will join together and discuss a variety of aviation security matters.

The enclosed report has also been sent to the Speaker of the House of Representatives.

Sincerely,

J. Lynn Helms
Administrator

Enclosure

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U.S. Department of Transportation
Federal Aviation Administration

Office of the Administrator

800 Independence Ave., S.W.
Washington, D.C. 20591

April 12, 1982

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Speaker of the House of Representatives
Washington, D.C. 20515

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CONTENT

		Page
I.	EXECUTIVE HIGHLIGHTS	1
II.	INTRODUCTION	3
III.	U.S. HIJACKINGS	3
IV.	FOREIGN HIJACKINGS	5
V.	AIRCRAFT/AIRPORT SABOTAGE	6
VI.	BOMB THREATS	6
VII.	CURRENT THREAT ESTIMATE	7
VIII.	PASSENGER SCREENING	10
IX.	CIVIL AVIATION SECURITY ACTIONS	11
X.	COMPLIANCE AND ENFORCEMENT	18
XI.	OUTLOOK	18

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EXHIBITS

1. Hijacking Attempts on U.S. Scheduled Air Carrier Aircraft

2. Hijacking Attempts on U.S. and Foreign Aircraft

3. Hijacking Attempts on U.S. General Aviation Aircraft

4. Actual Hijackings and Prevented Hijacking Attempts

5. Bomb Threats Against U.S. Aircraft and Foreign Aircraft in the United States

6. Bomb Threats Against U.S. Airports

7. The Threat to U.S. Aviation

8. Worldwide Criminal Incidents Involving Civil Aviation

9. Scope and Effectiveness

10. Airline Passenger Screening Results

11. Weapon Detection Devices

12. X-Ray Baggage Inspection Systems

13. Basic Policies

14. Regulatory Impact

15. FAA Sponsored Explosive Detection K-9 Teams—Locations and Utilization

16. Research and Development—Explosives Detection

17. Foreign Technical Assistance

18. Compliance and Enforcement Actions

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I. EXECUTIVE HIGHLIGHTS

1. THIS REPORT COVERS THE PERIOD JULY-DECEMBER 1981.

2. U.S. SECURITY REQUIREMENTS COVER 190 U.S. AND FOREIGN AIRLINES OPERATING OVER 14,000 FLIGHTS DAILY FROM OVER 620 U.S. AND FOREIGN AIRPORTS.

3. OVER 304 MILLION PERSONS PROCESSED THROUGH U.S. PASSENGER CHECKPOINTS. OVER 1200 FIREARMS DETECTED WITH OVER 650 RELATED ARRESTS.

4. WORLDWIDE, 19 SCHEDULED AIR CARRIER HIJACKINGS OCCURRED (10 SUCCESSFUL). 4 AGAINST U.S. AIRLINES (1 SUCCESSFUL).

5. THE 15 FOREIGN AIR CARRIER HIJACKINGS WERE MORE THAN IN ANY EQUIVALENT PERIOD SINCE 1972. 13 OCCURRED ON DOMESTIC FLIGHTS.

6. THERE WERE NO U.S. GENERAL AVIATION AIRCRAFT HIJACKED.

7. THE 7 HIJACKINGS OF U.S. AIR CARRIER AIRCRAFT DURING 1981 WERE THE LEAST FOR ANY ONE YEAR PERIOD SINCE 1977.

8. CIVIL AVIATION REMAINS VULNERABLE TO TERRORIST ACTS. AREAS OF GREATEST DANGER ARE EUROPE, THE MIDDLE EAST, AND CENTRAL AMERICA. IN THE U.S., ANTI-CASTRO, AND PUERTO RICAN NATIONALIST GROUPS CONTINUE TO POSE A THREAT.

9. BOMB THREATS AGAINST AIRCRAFT AND AIRPORTS TOTALED 614. THIS IS LESS THAN IN ANY HALF-YEAR PERIOD SINCE 1971.

10. WORLDWIDE CRIMINAL ACTS AGAINST CIVIL AVIATION INCLUDED 20 HIJACKINGS, 20 EXPLOSIONS, 6 EXPLOSIVE DEVICES DISCOVERED, AND 2 TERRORIST ATTACKS.

11. CRIMINAL ACTS AGAINST CIVIL AVIATION CAUSED 3 DEATHS AND 38 INJURIES. (1 INJURY IN THE U.S.)

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12. DURING 1981, ALLEGED SECURITY VIOLATIONS BY AIR CARRIERS, AIRPORTS, AND INDIVIDUALS TOTALED 3,323.

13. OF THE 3,323 ALLEGED SECURITY VIOLATIONS, 291 RESULTED IN CIVIL PENALITIES TOTALING $168,632.

14. PRINCIPAL GOVERNMENT/INDUSTRY ACTIONS DURING THE REPORTING PERIOD:

A. IMPLEMENTED NEW SECURITY REGULATIONS WHICH TAILORS SAFEGUARDS TO AIRCRAFT SIZE AND TYPE OF OPERATIONS.

B. COMMUTER, AIR TAXI, AND CORPORATE AVIATION ANTIHIJACK TRAINING PROGRAM DEVELOPED.

C. SPECIAL INSPECTIONS CONDUCTED OF SECURITY PROCEDURES FOR U.S. AIRLINES AT SELECTED FOREIGN AIRPORTS.

D. FEDERAL AIR MARSHALS PROVIDED LAW ENFORCEMENT SUPPORT TO AIRLIFT OF HAITIAN REFUGEES.

E. INDUSTRY/FAA TASK FORCE DEVELOPED ALTERNATIVE LAW ENFORCEMENT REQUIREMENTS.

F. AIRPORT ALTERNATIVE LAW ENFORCEMENT PROPOSALS APPROVED FOR MORE THAN 100 AIRPORTS.

G. TESTING NEW COMPUTER PROGRAM IN THE X-RAY ABSORPTION SYSTEM DEVELOPED TO DETECT BOMBS IN CHECKED BAGGAGE. SYSTEM IS THE FIRST AVAILABLE ANYWHERE IN THE WORLD.

H. OTHER RESEARCH AND DEVELOPMENT PROJECTS TO IMPROVE EXPLOSIVE DETECTION CAPABILITIES ON SCHEDULE.

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II. INTRODUCTION

This is the 15th Semiannual Report to Congress on the Effectiveness of the U.S. Civil Aviation Security Program. It covers the period July 1 - December 31, 1981, and is submitted in accordance with section 315(a) of the Federal Aviation Act.

III. U.S. AIRCRAFT HIJACKINGS

There were four U.S. scheduled air carrier hijackings during the reporting period. All but one of these hijackings were unsuccessful. The one successful hijacking ended in Cuba and was perpetrated by two Cubans utilizing bottles of flammable liquid as their weapons. They had arrived in the United States as refugees during the large exodus from Cuba in May and June 1980. There were no hijackings of U.S. general aviation aircraft during this period.

The seven U.S. air carrier aircraft hijackings which occurred in 1981 were less than in any year since 1977 and amount to only one-third of the number which occurred in 1980. In addition to the dramatic reduction in the total number of hijackings in 1981 versus 1980, it is encouraging that only one of the seven attempts was successful. This record reaffirms that the passenger screening system and aviation security defensive measures continue to be effective. The one successful hijacking is a reminder, however, that vigilance at screening checkpoints and crewmember security awareness are essential elements of a reliable Civil Aviation Security Program.

The following is a brief summary of the four U.S. scheduled air carrier aircraft hijackings which occurred during the second half of 1981:

(See Exhibits 1, 2, and 3.)

- o July 10 - While en route from Chicago, Illinois, to Miami, Florida, an Eastern Air Lines L-1011 aircraft was hijacked by two Cuban males who were accompanied by their wives and four children. The two men carrying baby bottles of flammable liquid with burning wicks burst into the cockpit and demanded to be flown to Cuba. Upon arrival in Havana, Cuba, the hijackers, along with their families, were taken into custody by Cuban authorities.

- o October 5 - On an intrastate flight from Albany to Buffalo, New York, a man told a flight attendant of a USAir BAC-111 aircraft that he had a bomb in a bundle of clothing in his possession and demanded to be flown to the Soviet Union. A crewmember convinced the hijacker that the plane was not capable of making a flight of that distance and that a landing at Buffalo would be necessary to arrange for a replacement aircraft. After landing, the passengers were allowed to deplane and the crew disembarked at the same time. After remaining aboard alone for about 20 minutes, the hijacker walked off and surrendered. A search of the hijacker and the aircraft failed to reveal any explosives. He has been charged with aircraft piracy and interference with a crewmember.

- o October 23 - On a domestic flight from San Juan, Puerto Rico, to New York, New York, an attempt was made by a lone male to hijack an

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American Airlines DC-10 aircraft. During the meal service, the man handed a flight attendant a note which stated in Spanish that the aircraft should be diverted to Quebec, Canada. He claimed to have explosives and accomplices aboard. The pilot convinced the hijacker that a refueling stop at New York would be necessary. Prior to landing, the man indicated that he wanted to surrender and that he did not have explosives or accomplices. Upon landing, he was taken into custody by agents of the Federal Bureau of Investigation (FBI). The man and the aircraft were searched and no explosives were located. He has been charged with aircraft piracy and making a false bomb threat.

- o December 5 - As passengers were boarding a Trans World Airlines B-707 aircraft preparing to fly from Cleveland, Ohio, to New York, New York, a man brushed past ticket agents, boarded the aircraft, entered the cockpit, and announced to the crew that he was hijacking the aircraft. Holding one hand in the pocket of his jacket, he claimed to have a gun and a bomb. While he was in the cockpit, airline personnel in the cabin area caused the passengers to deplane. The hijacker, upon leaving the cockpit, went on to the boarding steps and tried to close the aircraft's door. The pilot and flight engineer then attempted to overpower the hijacker and, during the struggle, the hijacker and flight engineer fell from the boarding steps to the ground. The flight engineer was seriously injured. The hijacker was overpowered by a ramp service agent and taken into custody by police. The aircraft and hijacker were searched and no explosives were found. He has been charged with aircraft piracy and interference with a crewmember.

In addition to compiling records on actual hijackings, the Federal Aviation Administration (FAA) has attempted to identify and record incidents in which it appears that individuals intended to hijack an aircraft or commit other crimes against civil aviation but were prevented from doing so by airline and airport security procedures in effect. While the number of these incidents cannot be determined with certainty, 5 such incidents occurred in the second half of 1981. This raises the number of hijackings or related crimes believed prevented since 1973 to 98. Below is a brief summary of each of the 5 incidents:

(See Exhibit 4.)

- o September 19 - A Cuban male asked a man who was standing in line at an airline ticket counter to buy him a ticket to Mexico. When the man refused, the Cuban brandished two knives and threatened to kill him. The man fell to the floor as he tried to flee and the Cuban got on top of him. Another individual at the scene picked up a metal ashtray and hit the Cuban who then fled through the security checkpoint and down the concourse, threatening two more persons along the way. He was finally apprehended in the air operations area. When questioned, he stated that he wanted to use someone as hostage to force an aircraft to fly to Cuba. He was charged with kidnapping, aggravated assault, carrying a weapon, and entering a restricted area.

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- o October 9 - As a scheduled air carrier aircraft was preparing to depart, a man with an object hanging from his neck grabbed a female ticket agent at a ticket counter in the boarding area. The woman screamed and two male ticket agents responded. The man moved the object which had been hanging from his neck to his hand, claimed it was a bomb, and indicated that he wanted to board the plane. He threatened to kill the ticket agent if anyone tried to stop him. One of the male ticket agents ordered the man to release the woman. At this point the man dropped the object, the woman broke loose from his grasp, and the two male ticket agents overpowered him. The object, which looked like a pipe bomb, was a hoax device. The man who has a history of mental disorder was charged with kidnapping, false imprisonment, and making a false bomb threat.

- o October 27 - An anonymous caller advised that a man intended to go to John F. Kennedy International Airport, New York, New York, and hijack an aircraft. A description was provided along with the advice that he would be carrying a bottle of flammable liquid concealed in his underwear. The individual reportedly was sympathetic to the Puerto Rican Independence Movement and sought to have friends released from prison. During the afternoon, an airline screening checkpoint supervisor recognized the man from the description. A report was made to the police and the man was arrested. Search of the individual revealed a pint-sized bottle of flammable liquid in his undershorts. He also had a small plastic bottle of flammable liquid, two books of matches, and a roll of toilet paper in his travel bag. He has been charged with possession of dangerous weapons and reckless endangerment.

- o November 17 - A ticketed male passenger carrying a large portable radio successfully passed through a screening checkpoint and a short time later exited the sterile area with the radio. When he returned, he and the radio were rescreened and the X-ray operator observed the image of a weapon inside the radio. Inspection of the inside of the radio revealed a .45 caliber Colt pistol loaded with a clip containing seven live rounds, four loaded clips, and twenty-nine additional rounds of ammunition. He was arrested and charged with attempting to board an aircraft with a concealed weapon.

- o November 30 - A man who was identified as a potential threat asked a law enforcement officer at a screening checkpoint if he could carry shotgun shells through the checkpoint. When advised that this would not be allowed, he went into a restroom where he remained for approximately 30 minutes. When he came out, he walked toward the checkpoint carrying a can of mace. He was stopped and given a pat-down search which revealed two loaded pistols in his waistband and a nightstick strapped to his side under his shirt. He was charged with attempting to board an aircraft with a weapon.

IV. FOREIGN HIJACKINGS

During the second half of 1981, there were 16 foreign aircraft hijacked. This represents a 200 percent increase over the number of hijackings which occurred in the first half of the year and is more than in any one half-year period since

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1972. Of the 16 hijackings, 15 were against scheduled foreign air carrier aircraft and 1 was against a general aviation aircraft. Nine of the 15 air carrier hijackings and the 1 general aviation hijacking were successful. In 9 of the 15 foreign air carrier hijackings, the hijackers were known to have carried real firearms. In 4 of the 15 incidents, the hijackers were armed with knives and other cutting instruments. In 1 of the 15 air carrier hijackings, the hijacker was armed with an explosive, and in another, the hijackers carried flammable liquids. Of the 15 hijackings, 13 occurred while the aircraft were on domestic flights within the countries of registry. In 7 of the 8 hijacking incidents where the hijackers were armed with real firearms, available information indicates that the weapons were introduced through the normal passenger boarding process and would have been intercepted by effective passenger and carry-on baggage screening procedures.

(See Exhibit 2.)

V. AIRCRAFT/AIRPORT SABOTAGE

One significant incident involving an actual explosive device affecting an airport occurred in the United States during the reporting period. This incident is summarized below:

(See Exhibit 7.)

- o December 30 - An explosive/incendiary device was found in a leather bag that had been stored in a baggage storage room at the San Francisco International Airport. The bag had been removed from a locker in the north terminal the previous day during a routine clearing operation. A locker concessionaire employee examining the bag for ownership identification discovered a note in the bag which contained instructions for delivering extortion money demanded on December 17 from four air carriers. The extortionist had demanded $1,000,000 each from United Air Lines, Trans World Airlines, American Airlines, and Delta Air Lines. Without searching the bag further, the employee notified local authorities who discovered the device. Bomb technicians rendered the device safe and removed it from the terminal. The extortionist has not been identified.

VI. BOMB THREATS

There were 614 threats involving the use of explosives against aircraft and airports during the reporting period. This represents a decrease of about 29 percent from the 870 threats reported in the first half of 1981 and approximately a 21 percent decrease in the number received during the second half of 1980. This is the smallest total number of bomb threats received during any 6-month period since 1971.

There were 484 bomb threats against aircraft during the reporting period which is 19 percent less than the 600 threats received in the first 6 months of 1981. This is the smallest number of bomb threats against aircraft received during any 6-month period since 1971. Of the 484 bomb threats, 307 were considered serious as defined in Exhibit 5. Telephone threats accounted for 250 (81 percent) of the serious threats. The remaining 57 (19 percent) were made in writing or

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verbally or were the result of locating suspect devices at various airport locations. These serious threats caused at least 205 searches to be conducted and at least 154 flight delays or diversions. There were a total of 29 U.S. airlines and 20 foreign airlines involved in the serious bomb threats. In 16 cases, the threats were accompanied by extortion demands.

No attempt was made to make a distinction between serious and nonserious bomb threats to airports since the majority were received under circumstances which made an evaluation of this nature impractical. The 130 bomb threats received against airports resulted in at least 104 searches, 15 evacuations, and 2 flight delays. Telephone threats accounted for 112 (86 percent) of the total bomb threats received against airports. Two of the threats were considered extortion attempts.

(See Exhibits 5, 6, and 7.)

VII. CURRENT THREAT ESTIMATE

Civil aviation continues to be an attractive and dramatic target worldwide. Hijackings and other criminal acts against civil aviation remain a major threat to the lives and property of people traveling and working in air transportation. The high level of hijackings and aviation sabotage incidents continuing during the reporting period indicates the necessity for continued effective security measures.

A total of 19 air carrier hijackings (10 successful) occurred worldwide during the July - December 1981 period. This number is almost double the 10 hijackings which occurred during the first half of 1981, 2 of which were successful. The yearly total of 29 air carrier hijackings is comparable to the high rate of worldwide hijackings which has occurred over the past several years; 38 in 1980, 23 in 1979, and 25 in 1978.

Acts of terrorism continue to pose a threat to civil aviation. During this reporting period, 5 of the 19 air carrier hijackings were committed by terrorists. The greatest danger remains in Europe, the Middle East, and Central America. Reportedly, groups such as the Popular Front for the Liberation of Palestine, the Japanese Red Army, West German Red Army Faction, the Italian Red Brigade, the Spanish Basque Separatist and, possibly, the Armenian Secret Army for the Liberation of Armenia continue to maintain links, associations, and some measure of mutual cooperation and assistance. These loose ties not only enhance but increase the capabilities of these organizations to carry out terrorist acts against international targets.

The Palestinian terrorist groups and the Japanese Red Army have not been active against civil aviation in the last few years; however, these organizations continue to have the potential to carry out terrorist acts, thus, remaining a threat. Reportedly, terrorist activities against international targets will be renewed if progress is not made on the Palestinian question and radical groups that resent the close ties between the United States and Israel may target U.S. interests.

A number of other terrorist organizations which constitute a potential threat to civil aviation continued their activities in varying degrees during the

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reporting period. After a period of low level activity, the first major terrorist incident against U.S. interests in West Germany since 1977 occurred when a bomb detonated at the U.S. Air Force Headquarters, Ramstein Air Base in Frankfurt, Federal Republic of Germany. The terrorists identified themselves as "friends of the RAF," thereby, clearly demonstrating the reactivation of the Red Army Faction in Germany and its capability to attempt further attacks against U.S. interests (e.g., the assassination attempt against General Kroesen, Commander, U.S. Army Europe). In addition, there were violent demonstrations against the deployment of the neutron bomb and the construction of the third runway at the Frankfurt International Airport, Frankfurt, Federal Republic of Germany, as part of an antinuclear movement. In Italy, security forces continued to enjoy success in their counter-terrorism actions against the Red Brigade. Except for minor terrorist acts, the increased activity anticipated during this period did not occur until the latter part of the reporting period when Brigadier General James L. Dozier was kidnapped from his home in Verona, Italy. The General is the first U.S. official (as compared to U.S. interests) targeted by the Red Brigade and adds to its potential operational creditability. Spanish Basque (ETA) continued to suffer setbacks at the hands of the Spanish government's counter-terrorist forces although their minor attacks against the Spanish Power Company and affiliates were successful. The ETA's known operational capabilities, however, are greater than these attacks suggest and it may be only the "calm before the storm."

Armenian terrorists continued their campaign against Turkish diplomats and airline offices, primarily in Europe. The main operational units of Armenian terrorism appear to be the Justice Commandos of the Armenian Genocide, the Armenian Secret Army for the Liberation of Armenia, and the New Armenian Resistance. Members of these groups, operating under different names as well as dates and places which commemorate the arrest of Armenian terrorists (e.g., "Orly Organization," "3 October Group," and "9 June Organization"), give the impression of the existence of a number of groups implying a the broad base of support. Since 1975, Armenian terrorists have conducted approximately 130 attacks against Turkish diplomats, government facilities, and corporate targets worldwide. Within the past 2 years, the targets have been expanded to include U.S., Swiss, French, and Italian facilities primarily in Europe. During 1981, Armenian terrorists were involved in 9 bombing incidents against airline offices (1 U.S.) and occupied 2 airline offices for short periods. During 1980, 14 explosions were directed at airline offices (2 U.S.) and 2 explosive devices were discovered at airline offices. All incidents occurred abroad.

In Central America, guerrilla and terrorist groups continued their activites at a somewhat higher level. In Guatemala, the Guerrilla Army of the Poor claimed responsibility for an explosion in a piece of checked baggage which was to be loaded aboard an Eastern Air Lines flight scheduled for Miami. The 31 January People's Front firebombed the office of the Honduran Airline, SAHSA, and bombed Pan American World Airways' downtown office. A Nicaraguan airliner was bombed in Mexico City by unknown persons, while 5 members of a group called the Nicaragua Democratic Anti-Communist Movement (Rightist) hijacked a Costa Rican Airline, SANSA, flight.

In South America, terrorist violence continued at a somewhat increased level. An explosive device was found at the El Dorado International Airport, Bogota,

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Colombia. The bomb was buried at the edge of the runway almost directly in front of the terminal. It is believed that the device was planted one day before the scheduled visit of the U.S. Vice President to Colombia. Explosive devices were found on a Peruvian aircraft and a Colombian charter aircraft. In addition, three Venezuelan airliners were successfully hijacked by members of terrorist groups. In the Far East, terrorist violence continued at a low level with demonstrations and militant acts continuing against the expansion of Narita Airport in Japan.

In the United States, the anti-Castro groups and Puerto Rican Nationalists continue to pose a threat to civil aviation; however, the level of activity for the Puerto Rican Nationalists was low during the reporting period. Omega 7, an organization which vehemently opposes the Fidel Castro regime, claimed credit for the explosion of two bombs. One explosion occurred at the Mexican Consulate in Miami, Florida, and the other at the Mexican United Nations Mission in New York, New York. There was extensive damage in both incidents but no injuries were reported. It is speculated that this violence directed against Mexico is in retaliation for its friendly relations with Cuba.

The refugees who came to the United States by boat during the mass exodus from Cuba in 1980 continue to pose a threat to civil aviation. Of the four hijackings that occurred during this reporting period, the one successful hijacking was directed to Cuba. The incident involved two Cuban males (plus two women and several children) who broke into the cockpit holding baby bottles which contained flammable liquid and had protruding wicks which were burning.

Armenian terrorists in the United States are another group of concern. Armenian terrorists can be held accountable for five explosions; two at Turkish facilities and three at Swedish facilities, all in California. Based on their past record, Armenian terrorists have shown the capability and willingness to operate against selected targets, particularly in California.

Other organizations of concern in the United States are the Croatian and Serbian groups in their struggle against the Yugoslavian regime; however, activity by these groups against civil aviation has been nil during the reporting period. Five other terrorist groups in the United States surfaced again during the reporting period. A coalition of these revolutionary groups participated in a Brinks Armored Car robbery in October 1981. Suspects arrested are believed to be associated with the Weather Undergound, the Black Liberation Army, the Black Panthers, the Republic of New Africa, and the May 19 Coalition. These organizations have been inactive over the past several years and there is no evidence to indicate they are now viable, functioning organizations.

While the threat of hijacking persists, sabotage and other criminal acts continue to pose a serious threat to civil aviation. A total of 49 criminal acts occurred during the reporting period, resulting in 3 deaths and 38 injuries. One of these injuries occurred in the United States during a hijacking incident. Twenty of these incidents were hijackings (19 air carriers, 1 general aviation), 6 of which were committed by members of groups considered to be terrorist organizations; 20 incidents were explosions (3 aboard aircraft, 4 at airports, 13 at airline offices) with 18 of these incidents considered to be terrorist actions; 6 involved explosive devices found, 2 of which were placed

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by terrorists. There were 3 other criminal acts involving civil aviation, 2 of which were committed by terrorists.

Since 1974, worldwide criminal acts against civil aviation have resulted in 711 deaths and 853 injuries with 118 deaths and 140 injuries involving U.S. civil aviation.

VIII. PASSENGER SCREENING

The current U.S. passenger screening program, which was initiated in January 1973, has resulted in an overall dramatic decrease in hijackings of U.S. air carrier aircraft. Since the program was initiated, there have been 64 air carrier aircraft hijackings. This amounts to about 7 per year over the 9-year period and is about one-fourth of the annual average of 27 which was experienced in the 5 years immediately preceding the beginning of the program. The 7 air carrier hijackings which occurred in 1981 were the least in number for any year since 1977. Over 3.7 billion persons have been screened during the period the program has been in existence and over 5 billion pieces of carry-on articles have been inspected for over 47 million flights. In addition, over 23,000 firearms have been detected resulting in over 9,000 arrests.

(See Exhibits 1 and 9.)

Reporting and analytical procedures relating to the screening process are focused on the detection of those weapons and dangerous devices considered to present the greatest threat to civil aviation security. FAA's analysis of passenger screening activities concentrates specifically on the detection of firearms and explosive/incendiary devices along with related intelligence, arrest, and prosecutive information.

During the last half of 1981, approximately 304 million persons were processed through screening checkpoints at the nation's 363 airports where passenger screening was conducted and a total of 1,284 firearms were detected during this period. This is approximately 23 percent higher than the average of 1,047 firearms detected during the preceding 8 reporting periods, 26 percent higher than the total of 1,020 firearms detected during the same period in 1980, and 34 percent higher than the total of 971 firearms detected during the first half of 1981. Of the 1,284 firearms detected, 1,181 (92 percent) were discovered through X-ray inspection of carry-on items, 81 (6 percent) were detected through the screening of individuals by weapon detection devices, and 22 (2 percent) by physical search. Three incendiary devices were also detected during this period through use of X-ray systems in conjunction with physical search.

There were 653 persons arrested at screening points for carriage of firearms and incendiary devices. This represents an increase of approximately 22 percent over the 534 arrests which occurred during the first half of 1981 and an increase of approximately 32 percent over the average of 495 arrests for the preceding 8 reporting periods. The 653 arrests involved some 39 U.S. airlines at 91 U.S. airports. Three hundred ninety-five (61 percent) of the arrests occurred at 29 large hub airports (e.g., Los Angeles, California, and Atlanta, Georgia); 166 arrests (25 percent) occurred at 29 medium hub airports (e.g., Baltimore, Maryland, and Portland, Oregon); and 92 arrests (14 percent)

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occurred at 33 small and nonhub airports (e.g., Shreveport, Louisiana, and Colorado Springs, Colorado).

In 161 (25 percent) of the 653 arrests, the individuals involved were fined, placed in confinement, and/or placed on probation; in 114 (17 percent) of the cases, charges were dropped or dismissed, making a total of 275 cases settled. In the remaining 378 arrests (58 percent) action is still pending. Of the 275 cases which have been settled, 59 percent (the 161 cases cited above) have resulted in fines, confinement, or other disciplinary action.

(See Exhibit 10.)

At screening checkpoints the equipment primarily used to carry out the screening operation consists of walk-through weapon detection devices and, at high volume stations, X-ray inspection systems for carry-on articles. There are 1,311 walk-through weapon detection devices in use and 774 X-ray carry-on article inspection systems. There are also many handheld devices in place to be used as backup support for the walk-through weapon detection devices. Continuing efforts are being made to improve the current screening equipment and to minimize inconvenience to passengers. Screening prior to boarding has been fully accepted by the flying public and is generally expected in the interest of aviation safety.

(See Exhibits 11 and 12.)

IX. CIVIL AVIATION SECURITY ACTIONS

The success of the overall U.S. Civil Aviation Security Program can be largely attributed to the concept of shared responsibilities involving airports, airlines, the Federal Government, local communities, and the air travelers. With a spirit of cooperation, each has accepted and carried out their individual responsibilities as described in the basic policies which guide the program. The program currently involves 190 U.S. and foreign airlines operating approximately 14,600 scheduled passenger flights each day to and from about 628 U.S. and foreign airports. These operations involved approximately 1.762 million persons with 1.759 million pieces of carry-on items processed through the screening system daily.

(See Exhibits 13 and 14.)

Aircraft Security. The most significant actions taken to supplement existing procedures and to develop increased effectiveness in civil aviation security safeguards included the revision and consolidation of aviation security regulations to identify appropriate levels of security for various types of aviation operations; development of an antihijack training program for commuter, air taxi, and corporate aviation; selected use of Federal Air Marshals for in-flight security; and special inspection of security procedures utilized for passenger screening and protection of U.S. air carriers at foreign airports. In addition, claims for compensation by certain U.S. air carriers for nonreimbursed international security costs continued under audit. The following is a summary of these actions:

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- Federal Aviation Regulations (FAR) Part 108 - Air Carrier Security. This consolidated aviation security regulation became effective in September. It revised and consolidated previous aviation security regulations for scheduled passenger and public charter operations and extended the regulation to certain commuter and air taxi operations and small airplane operations conducted by U.S. air carriers. The consolidation provides an appropriate response to the current threat of aircraft piracy and other criminal violence against U.S. scheduled and public charter airplane operations by tailoring security safeguards to the size of aircraft utilized and type of operation planned. In connection with the implementation of this new regulation, appropriate complementary security amendments were made to FAR Parts 107, 121, 129, and 135.

- Commuter, Air Taxi, and Corporate Aviation Antihijack Training Program. A new audiovisual training aid entitled "A Common Strategy for Commuter, Air Taxi, and Corporate Aircraft Operators" was completed in December 1981. This program is similar to the FAA antihijack training aids previously developed in conjunction with the FBI and the aviation industry for crewmembers of large scheduled air carrier aircraft. The new program is specifically directed toward smaller aircraft and the unique operational environment of the commuter, air taxi, and corporate aircraft operator. It is expected to be reproduced and distributed in the near future.

- Federal Air Marshal Support. During August, the FAA provided Federal Air Marshal support to the Immigration and Naturalization Service in the initial airlift of Haitian refugees from Miami, Florida, to Fort Allen, Ponce, Puerto Rico. Federal Air Marshals were utilized to assure appropriate preboard security screening and in-flight security from Miami to Puerto Rico.

- Foreign Airline Operations. In September, FAR section 129.25, Foreign Air Carrier Security, was amended to require foreign airplane operators to adopt security requirements similar to those required of U.S. airplane operators for flights to or from the United States. These requirements are based on aircraft size and type of operation and provide adequate safeguards to protect passengers from acts of air piracy and other criminal violence in air transportation.

- Inspection of Security Procedures for U.S. Air Carriers at Foreign Airports. In July and August, FAA representatives conducted inspections of security procedures in effect for passenger screening and protection of U.S. air carrier operations at airports located in Central and South America. The inspections were instituted following receipt of reports that at some locations in Central and South America from which U.S. air carriers operate passenger screening was inadequate. The inspections revealed that the allegations were correct at some locations. Appropriate representatives of the governments involved were notified of the inspection findings and corrective actions have been initiated.

- Compensation for Required Security Measures in Foreign Air Transportation. Special Federal Aviation Regulation (SFAR) Number 34,

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which became effective on August 27, 1980, established procedures for compensating air carriers who incurred nonreimbursed costs for screening passengers and their carry-on baggage moving in foreign air transportation during the period July 1, 1972, through September 30, 1978. The cutoff date for air carrier claims pursuant to the SFAR was June 30, 1981. Four certificate holders have filed claims totaling $12,114,921. The 1976 Airport Development Aid Program Legislation (Public Law 94-353), which mandated compensation for such costs, authorized appropriation of only $9 million to satisfy air carrier claims. During the reporting period, the Office of the Inspector General, Department of Transportation, initiated audits of the claims received. Following completion of the audits and determination of the reasonableness of the costs, action will be taken to seek additional funding as necessary.

Airport Security. Airport operators have continued to support and carry out highly efficient security programs at airports utilized by U.S. air carriers. None of the eight hijackings which occurred in the United States in 1981 were the result of insufficient or ineffective airport security measures. Significant activities during the second half of 1981 which contributed to the improvement of airport security included continued training of law enforcement officers and others directly involved in aviation security, approval and implementation of various alternative law enforcement support concepts for passenger screening activities, and continuation of the explosive detection K-9 team program. These activities are summarized below:

- o Civil Aviation Security Training. The formal classroom training primarily designed for local law enforcement officers assigned to support airline and airport security programs is conducted at the Transportation Safety Institute in Oklahoma City, Oklahoma. The course provides in-depth coverage of civil aviation security requirements, procedures, and techniques. As of December 31, 1981, a total of 106 classes have been conducted for 2,460 students including 1,753 local law enforcement officers, 347 foreign students, 288 FAA employees, and 72 others, including representatives of other U.S. Government agencies and aviation industry officials. In addition to the formal classes at Oklahoma City, special 2-day seminars, attended by 3,056 persons, have been conducted at 45 airports throughout the nation.

- o FAA/Industry Task Force Completes Study of Airport Law Enforcement Support Requirements. A task force made up of airline, airport, and FAA security officials finalized a study of law enforcement support requirements at passenger screening points at airports. This study examined the previous 8 years of passenger screening experience and the current threat estimate. Giving consideration to the current threat situation, the study goal was to determine whether airline and airport security programs could be modified to provide for more effective utilization of law enforcement personnel at airports while at the same time continuing the maintenance of essential security safeguards. The task force concluded that new alternatives in these areas will allow airline and airport operators to implement multilevel security safeguards. These safeguards are to be keyed to the number of persons

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screened and security incident activity at the airports. The FAA/industry analysis supported such tailoring of security safeguards. This resulted in airline security programs being modified to strengthen security at passenger screening points. Based upon that strengthening, airport operators are now authorized greater flexibility in providing law enforcement support required by law and regulation to protect people traveling in air transportation from acts of air piracy and other criminal violence.

- o New Airport Law Enforcement Support Alternatives Adopted by Many Airports. Following the recommendations of an FAA/industry task force (see above), airport operators now have three basic alternatives from which to select in order to comply with FAA law enforcement support requirements. The three alternatives are:

    (1) Have law enforcement officers (LEO) present at the screening checkpoints during all screening.

    (2) In conjunction with installation of overt and covert communications equipment, have LEO's patrol in the immediate vicinity but not at the screening checkpoints.

    (3) The newly adopted extended flexible response option for LEO's. This new option, in conjunction with installation of overt/covert communications equipment and increased training of air carrier screening personnel, permits LEO's to be further away from the screening checkpoints to effectively utilize their expertise throughout the terminal, airport or area. The distance an LEO may be away from screening checkpoint is determined by the number of persons screened at each specific airport.

  At the larger airports in the country, the air carriers must also have in place a specially trained screening checkpoint security supervisor who is able to handle routine screening checkpoint problems without calling for law enforcement assistance. The extended flexible response option for LEO's was approved by FAA on September 11, 1981, and by the end of the year more than 100 U.S. airports were operating under this new law enforcement support concept.

- o Explosive Detection Dog/Handler Teams. Since July 1, 1981, when the former Law Enforcement Assistance Administration terminated their participation in the funding and fiscal management of this program, the FAA has assumed full responsibility for the program. Reprogramed funds from the FAA budget have been used to support the program temporarily until a more permanent funding source can be established. Contingent on the availability of funds, an interagency support agreement has been concluded between the U.S. Air Force and FAA. The U.S. Air Force provides the training and evaluation support and the FAA provides fiscal and operational management. Teams participating in this program are positioned so that this emergency support will be readily available to threatened aircraft flying over the United States within 30 minutes

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flying time. During the reporting period, one police department withdrew as a program participant leaving a current total of 29 airports which can provide this emergency explosive detection K-9 team support. To date, in actual explosive detection missions, the teams have detected 46 explosive items in the course of 6,114 aircraft and airport searches. In addition, they have conducted 6,351 explosive searches in their local communities, detecting 140 additional explosive items.

(See Exhibit 15.)

Research and Development. During the reporting period the FAA continued its research and development program which is designed to develop effective and efficient techniques and equipment to detect explosives in checked baggage, in air cargo, and when carried by individuals. The following is the current status of these efforts:

(See Exhibit 16.)

- o X-ray Absorption. Development of an X-ray absorption device represents the culmination of 8 years of research and development and is the first device of its type available anywhere in the world. The concept of X-ray absorption detection of explosives is based on an automatic computer-based analysis of the size, shape, and X-ray density of checked baggage contents. An operational test of this technique demonstrated sufficient detection capability to warrant further development. As a result, two detectors were modified for operational use. One was installed at Dulles International Airport, Washington, D.C., and an operational evaluation involving the processing of over 65,000 pieces of baggage was recently completed. Although the performance was somewhat less than anticipated, the system demonstrated that it can be effective in the detection of explosive devices in checked baggage. The second operational prototype system was delivered to the FAA Technical Center, Atlantic City, New Jersey, to test advanced computer programing techniques with a view to improving detection performance. The contractor has delivered a new algorithm (computer program) to the FAA Technical Center. This algorithm is designed to enhance the detection capability of the system and at the same time reduce false responses. It has been placed in the system at the Technical Center for test and evaluation. If testing indicates an improvement in performance, the algorithm will be incorporated into the system at Dulles International Airport and testing will be conducted to determine performance under operational conditions.

- o Thermal Neutron Activation. The technical feasibility of this concept, which involves identification of explosives by means of a nuclear reaction unique to specific explosive materials, has been demonstrated. A portable system has been constructed to allow testing at different airports. Thus far, testing has been conducted at Greater Pittsburgh International Airport, Pittsburgh, Pennsylvania, and Logan International Airport, Boston, Massachusetts. Analysis of the test data indicates that the system may be best suited for the processing of air cargo. In November a test of the system was conducted at an air cargo facility at

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Greater Pittsburgh International Airport. As a result of this test the system will be modified so that it can be used and operated by trained airline screening personnel when responding to a threat situation.

- o Nuclear Magnetic Resonance. This concept relies on the detection of a characteristic response of explosive molecules when they are subjected to magnetic and pulsed radio frequency fields. After a scale model of the system was constructed and the feasibility of this concept demonstrated, an airport evaluation to gather research and development data and to determine operating characteristics was conducted in the spring of 1979. An additional evaluation was conducted at Dallas-Fort Worth Regional Airport, Fort Worth, Texas, and analysis of this data showed that the concept is feasible. As a result, the laboratory model will be converted into an operational system and is expected to be ready for operational test and evaluation by late summer of 1982.

- o Walk-by Explosive Detector. The Transportation System Center, Department of Transportation, Cambridge, Massachusetts, is developing equipment which will detect explosives being carried by individuals. An unsuccessful attempt was made several years ago to develop a similar system. This new effort is being undertaken in view of the recent improvements in technology with regard to vapor collection sampling. Success in this area would significantly contribute to the development of a complete explosive detection system covering all methods of placing explosives aboard aircraft. Laboratory evaluation of a prototype device indicates that to develop an effective device further improvements in the state of the art are required in the area of vapor collection and sampling. In this regard, inquiries are being made to determine if industry can meet FAA specifications for the development of an explosive vapor detector for both passenger and checked baggage.

- o Vapor Characterization. Examination of the vapors of all explosives of interest has been completed. Further efforts in the area of vapor characterization are not planned at this time. As indicated in the above discussion concerning the walk-by explosive detector, efforts are continuing to determine the feasibility of developing a vapor detector system for checked baggage.

- o Use of Small Animals to Detect Explosives. Following extensive study concerning the potential of small animals (i.e., gerbils and rats) in the detecting of explosives, the Philadelphia Medical Research Wing of the Veterans Administration, Philadelphia, Pennsylvania, determined that these animals could not meet FAA requirements with regard to sensitivity to the odors involved and ability to select out the specific odors of interest. No additional funding for further work in this area is planned.

International Activities. Crimes against civil aviation are recognized by most governments as an international as well as a domestic problem. It is also generally recognized that because of its international scope the support and cooperation of all nations are required in programs and activities designed to prevent or deter criminal acts against civil aviation. Most nations have

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pledged to accept and carry out positive actions to curtail these criminal acts. Some of the joint activities of countries and international organizations which occurred during July - December 1981 are summarized below:

- o European Civil Aviation Conference (ECAC). An FAA representative participated in the 10th annual meeting of the ECAC Working Group on Security Problems held in Paris, France, in September. The discussions centered on reports concerning the status of civil aviation security programs in ECAC Member States and the actions being taken on a wide range of procedures under consideration which are intended to improve the overall security of civil aviation. Representatives of 16 nations and 4 international aviation-oriented organizations participated.

- o Memorandum of Understanding between the U.S. Department of Transportation and the Ministry of Transport of Canada. A memorandum of understanding to foster cooperation between the United States and Canada in research and development in transportation was signed in November. Special projects related to aviation security were discussed at an initial planning meeting held in December at the FAA Technical Center. As a result of this meeting several areas of research and development have been identified in which closer coordination and joint participation would be mutually beneficial and would further the international goals of civil aviation security.

- o Central American Civil Aviation Conference. In December an FAA representative participated in the 25th Annual Conference of the Director Generals of Civil Aviation of Central America held in Tegucigalpa, Honduras. Discussions included the worldwide hijacking threat, domestic air carrier aircraft hijackings, and recommendations for security procedures for intracountry flights. Representatives of eight nations and the International Civil Aviation Organization attended the meeting.

- o Third International Civil Aviation Security Conference. FAA has scheduled the Third International Civil Aviation Security Conference to be held in Washington, D.C., July 20-22, 1982. This conference, as with previous conferences in 1977 and 1979, will bring together representatives of many governments and air carriers to discuss a great variety of aviation security matters.

- o Foreign Technical Security Assistance. During the reporting period, FAA continued its bilateral technical assistance and exchange of information programs. FAA technical assistance security teams visited foreign nations to provide evaluations of security systems and to provide training in security procedures. During these trips, an assessment of technical security requirements also was conducted. Additional assistance was provided through briefings of foreign civil aviation officials on security matters, through aviation security training programs offered at the Transportation Safety Institute, and through the distribution of analytical studies and training aids relating to civil aviation security. The technical security surveys conducted in foreign

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countries during the reporting period were limited due to a lack of funds and resources.

(See Exhibit 17.)

X. COMPLIANCE AND ENFORCEMENT

During 1981, 3,323 investigations of alleged security violations by air carriers, airports, and individuals were completed. In 291 of the cases civil penalties totaling $168,632 were collected, and in 2,766 cases administrative corrective action was taken. In the remaining cases the alleged violations were not substantiated. These overall figures for 1981 are significantly higher than those for the preceding calendar year. This increase in total enforcement actions is due in part to the large number of persons apprehended with weapons at passenger screening checkpoints. In 1980 there were a total of 1,786 cases and 1981 this number rose to 2,608 an increase of 46 percent.

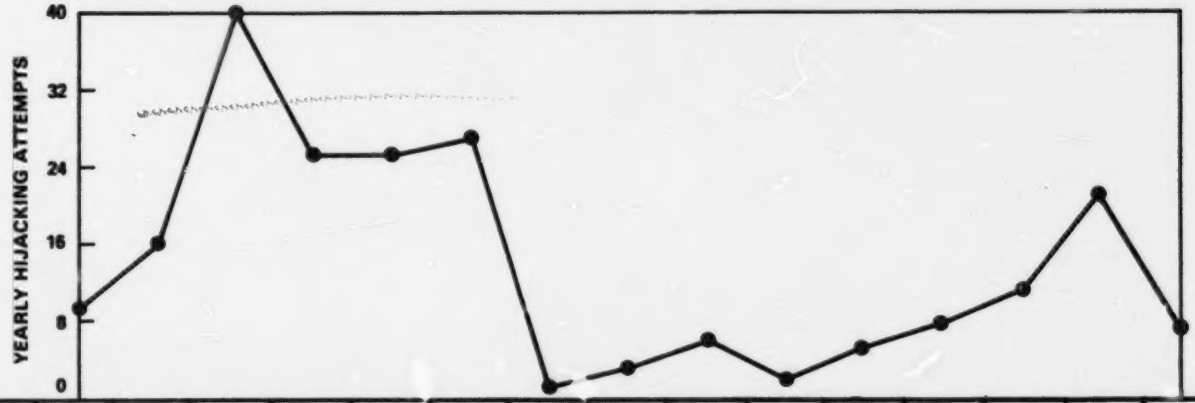
(See Exhibit 18.)

XI. OUTLOOK

While the number of hijackings of U.S. aircraft generally appears to be on the decrease, foreign aircraft hijackings increased significantly during the reporting period. This indicates that, although effective security measures implemented over the years have been substantial, additional emphasis on security matters is still required in various areas of the world. The high number of criminal acts annually perpetrated against civil aviation proves the continued vulnerability of air transportation to these crimes. In the United States security measures appear to be capable of successfully meeting and containing the present threat. Because of its nature, however, civil aviation will remain somewhat vulnerable to attack and a very desirable target of those willing to resort to violent means to secure or draw sympathetic attention to their goals.

US Department of Transportation
Federal Aviation Administration

Hijacking Attempts on U.S. Scheduled Air Carrier Aircraft [1/]



HIJACKING BY YEAR	1930-1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	TOTALS
TOTAL	9	16	40	25	25	27	1	3	6	2	5	8	11	21	7	208
SUCCESSFUL	4	12	33	17	11	8	0	0	0	1	0	0	4	13	1	104
INCOMPLETE [2]	1	1	1	4	8	14	1	1	1	0	3	4	5	3	0	47
UNSUCCESSFUL	4	3	6	4	6	5	0	2	5	1	2	4	2	5	6	55

[1/] Includes commercial operators engaging in intrastate common carriage covered by Code of Federal Regulations Title 14 Part 121.7.
[2/] Hijacking in which hijacker is apprehended/killed during hijacking or a result of "hot pursuit".

U.S. Aircarrier Hijacking Attempts Since Jan. 1, 1981

Date 1981	Airline-Flt/ Aircraft	Number Aboard	Hijacker's Boarding Point	Hijacker's Destination/ Objective	Date 1981	Airline-Flt/ Aircraft	Number Aboard	Hijacker's Boarding Point	Hijacker's Destination/ Objective
2/5	EA-929/L-1011	242	New York, NY (JFK)	Cuba	7/10	EA-71/L-1011	192	Chicago, IL	Cuba
3/5	CO-72/B-727	92	Los Angeles, CA	$3 Million Ransom	10/5	AL-455/BAC111	66	Albany, NY	Moscow, USSR
4/10	EA-17/A300B	148	New York, NY (LGA)	Cuba	10/23	AA-676/DC-10	109	San Juan, PR	Quebec, Canada
					12/5	TW-534/B-707	87	Cleveland, OH	Iran

As of: 1/1/82

EXHIBIT 1

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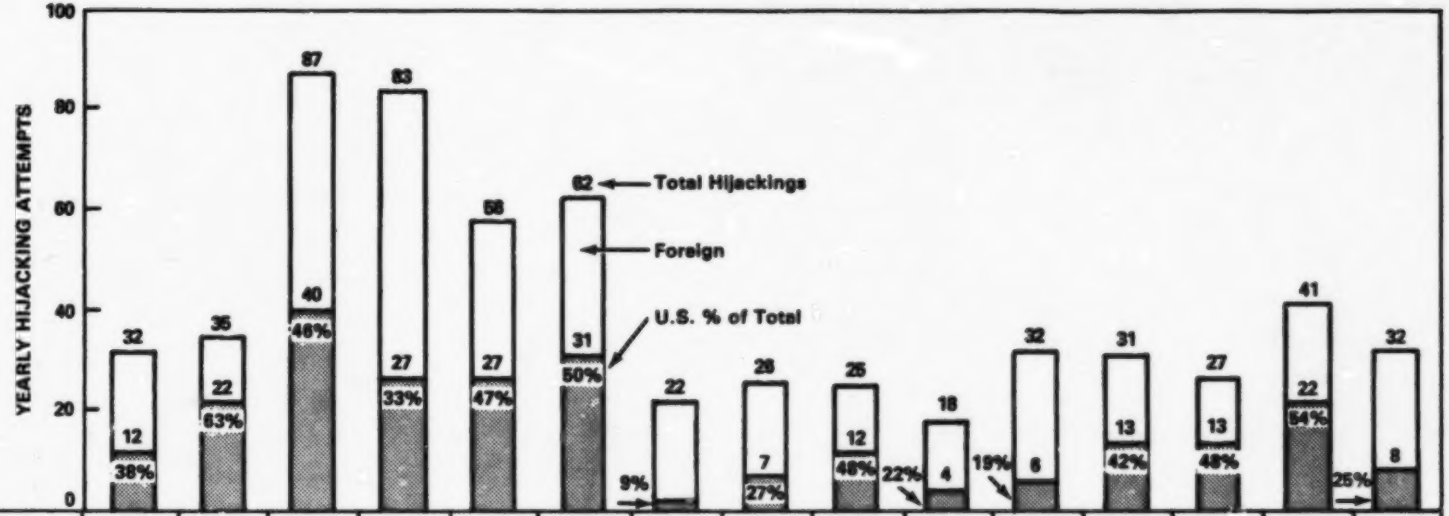
US Department of Transportation
Federal Aviation Administration

Hijacking Attempts on U.S. And Foreign Aircraft*



HIJACKING BY CALENDAR YEAR	1961 Thru 1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981
TOTAL	32	35	87	83	58	62	22	26	25	18	32	31	27	41	32
U.S.	12	22	40	27	27	31	2	7	12	4	6	13	13	22	8
FOREIGN	20	13	47	56	31	31	20	19	13	14	26	18	14	19	24
U.S. % OF TOTAL	38	63	46	33	47	50	9	27	48	22	19	42	48	54	25

*Includes General Aviation

As of: 1/1/82

EXHIBIT 2

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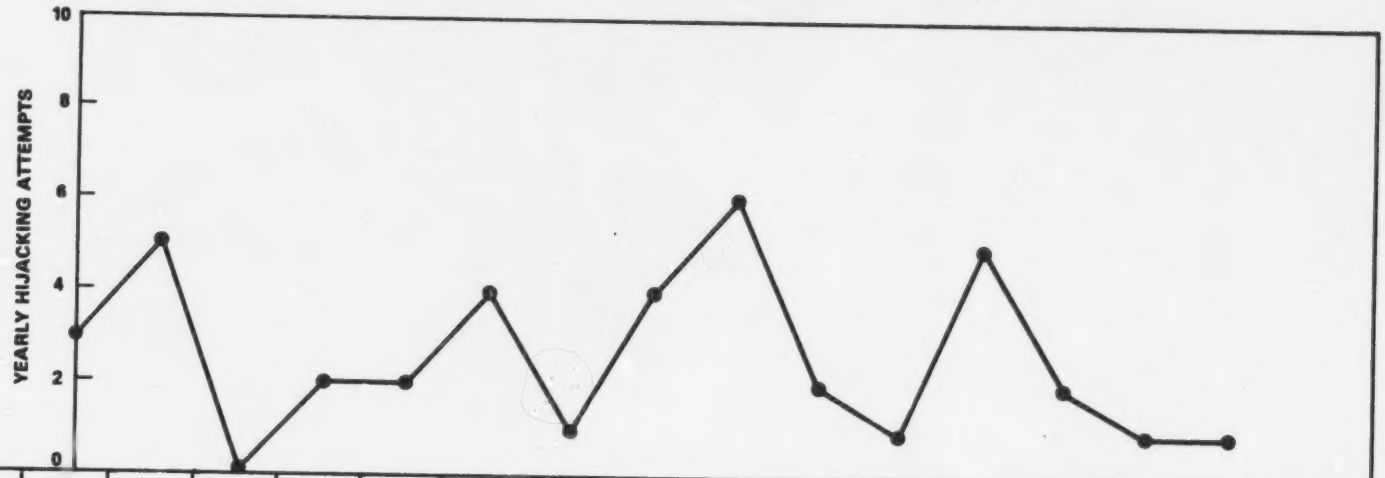
US Department of Transportation
Federal Aviation Administration

Hijacking Attempts on U.S. General Aviation Aircraft



CY	Prior 1968	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	TOTALS
TOTAL	3	6	0	2	2	4	1	4	6	2	1	5	2	1	1	40
Successful	3(100%)	6(100%)	0	1(50%)	1(50%)	2(50%)	1(100%)	3(75%)	4(67%)	0	0	2(40%)	2(100%)	0	1(100%)	26(65%)
Incomplete 1/	0	0	0	1(50%)	1(50%)	0	0	1(25%)	2(33%)	1(50%)	0	2(40%)	0	0	0	8(20%)
Unsuccessful	0	0	0	0	0	2(50%)	0	0	0	1(50%)	1(100%)	1(20%)	0	1(100%)	0	6(15%)

1/Hijacking in which hijacker is apprehended/killed during hijacking or as a result of "hot pursuit."

General Aviation Aircraft Hijacking Attempts Since Jan. 1, 1981

Date 1981	Aircraft	Number Aboard	Hijacker's Boarding Point	Hijacker's Destination/ Objective
1/25	Helicopter/AS-350	3	Teterboro,N.J.	Prisoner Release

As of: 1/1/82

EXHIBIT 3

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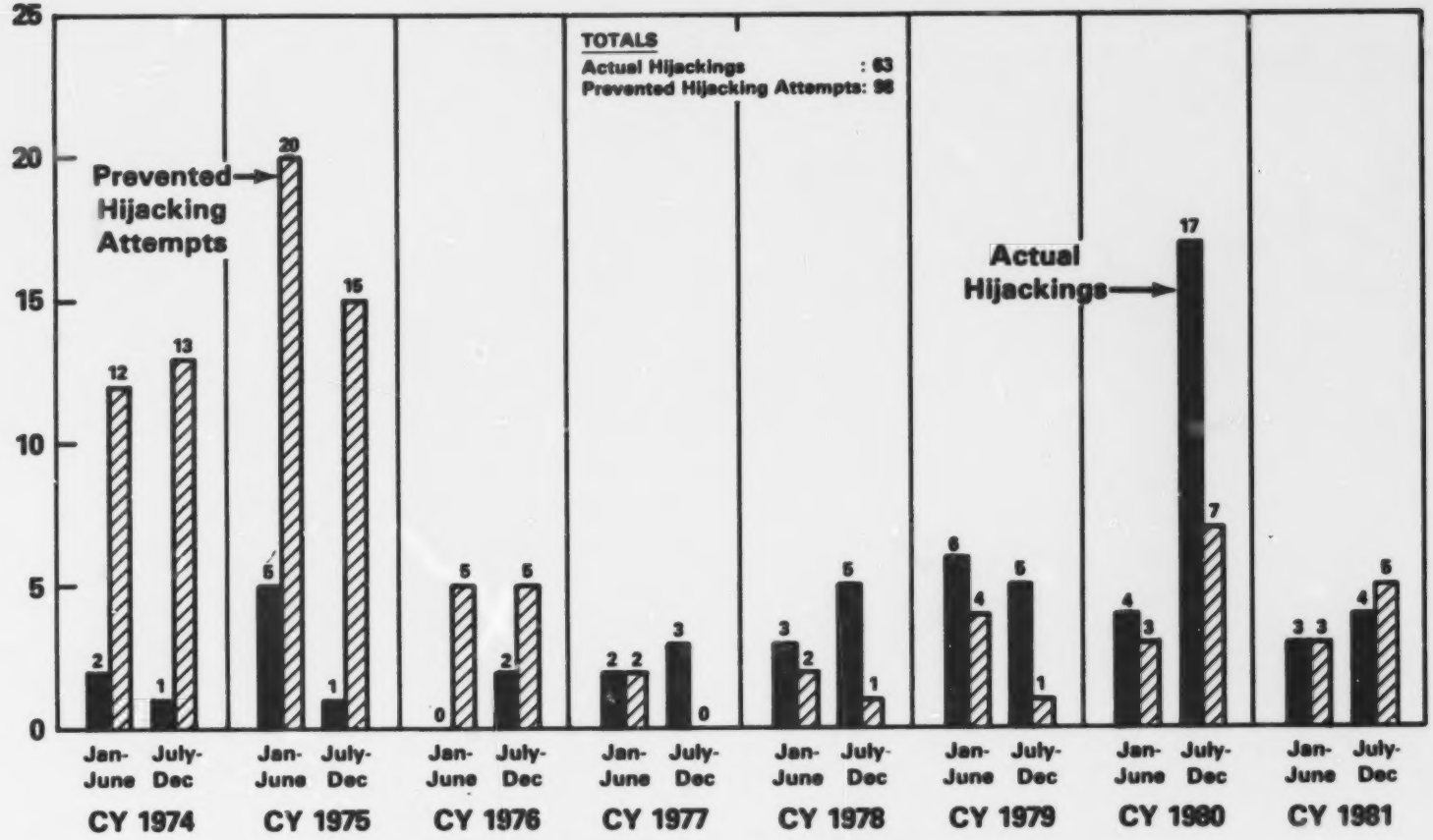
US Department of Transportation
Federal Aviation Administration

Actual Hijacking & Prevented Hijacking Attempts (U.S. Air Carrier Aircraft)



PREVENTED ATTEMPTS: Incidents in which it appeared the individuals involved intended to hijack an aircraft but were prevented from doing so by security procedures.

As of: 1/1/82

EXHIBIT 4

22

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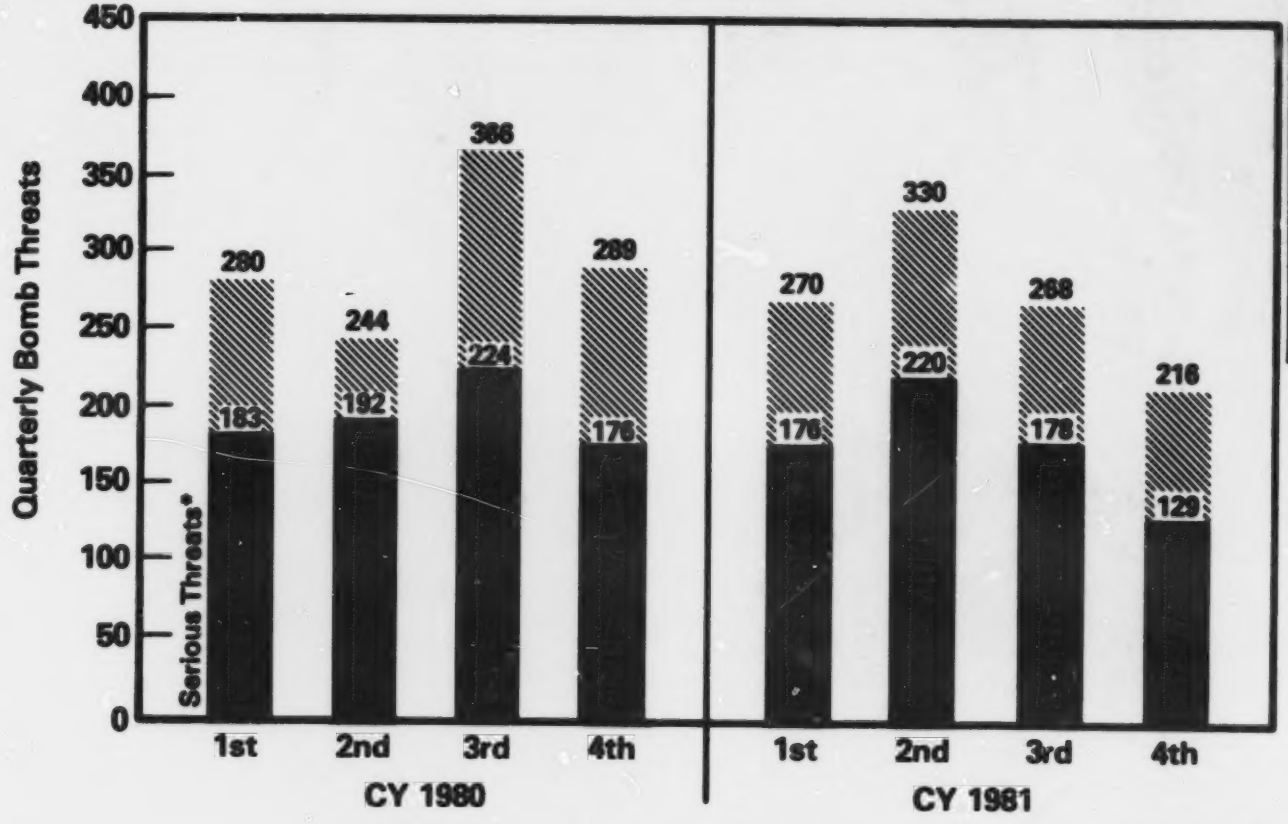
U.S. Department of Transportation
Federal Aviation Administration

Bomb Threats Against U.S. Aircraft and Foreign Aircraft in the U.S.



Totals by Calendar Year		
CY	Number	Extortion Attempts
1970	601	Not Available
1971	1,145	"
1972	2,196	"
1973	1,383	63
1974	1,453	48
1975	1,853	35
1976	1,950	27
1977	1,229	29
1978	1,032	11
1979	1,121	16
1980	1,179	22
1981	1,084	25

As of: 1/1/82

*A statement is considered a serious threat if one of the following occurs:

1. It is directed against a particular aircraft or flight.
2. It is not possible to immediately determine if it is made in a joking manner.
3. It results in inconvenience to other passengers.
4. It results in a search or otherwise disrupts airline operations.

EXHIBIT 5

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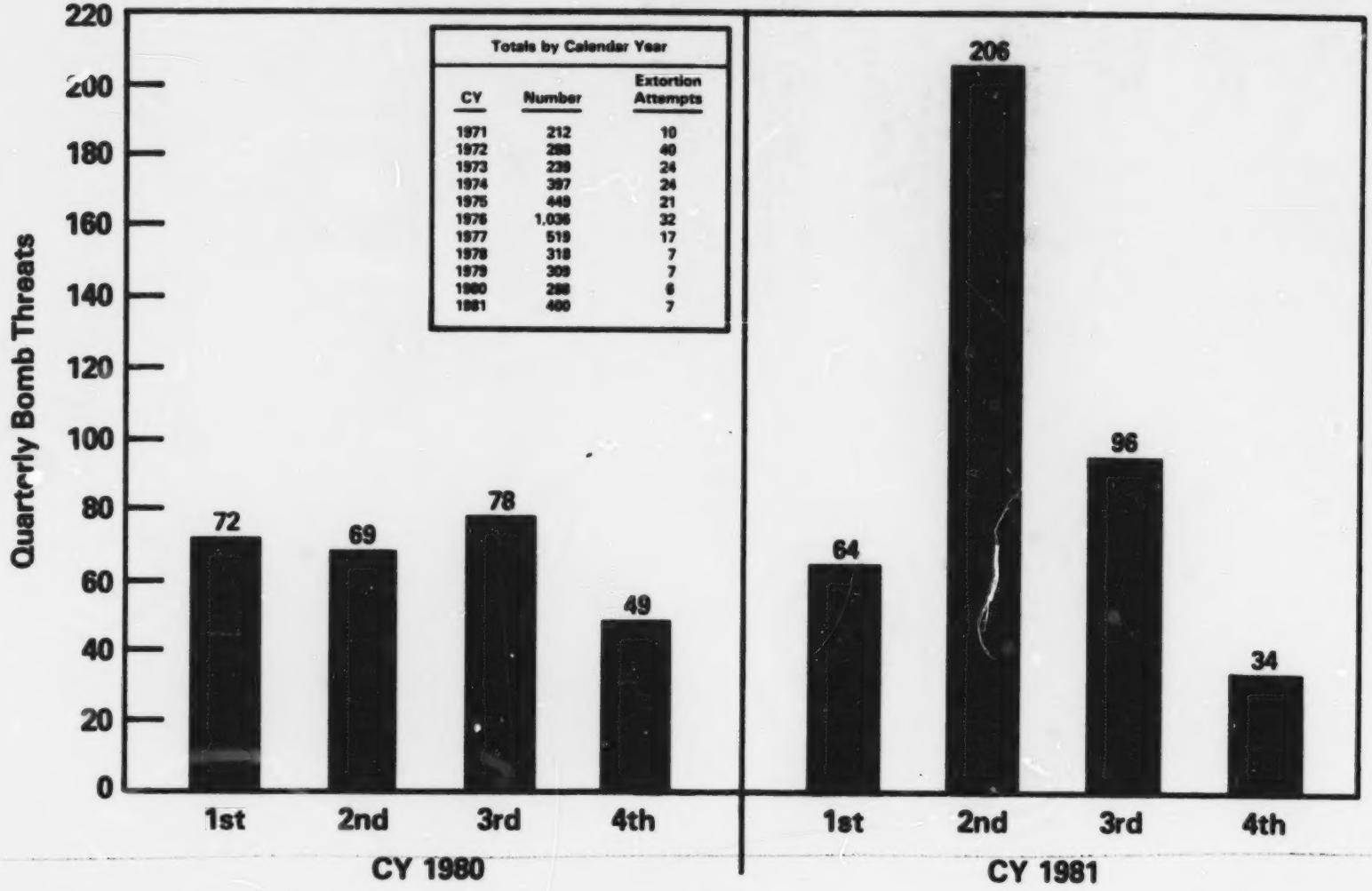
U.S. Department of Transportation
Federal Aviation Administration

Bomb Threats Against U.S. Airports



Totals by Calendar Year

CY	Number	Extortion Attempts
1971	212	10
1972	288	40
1973	239	24
1974	397	24
1975	449	21
1976	1,036	32
1977	519	17
1978	318	7
1979	309	7
1980	288	6
1981	400	7

As of: 1/1/82

EXHIBIT 6

24

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U.S. Department of Transportation
Federal Aviation Administration

Civil Aviation Security
The Threat To U.S. Aviation

	1961-7	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981
Hijackings*	12	22	40	27	27	31	2	7	12	4	6	13	13	22	8
Explosions:															
Aircraft	2	1	1	2	1	1	2	3	2	2	1	0	1	1	0
Airports						2	2	4	4	2	3	3	2	1	2
Explosive Devices Found:															
Aircraft					1	2	2	1	1	1	2	0	2	1	1
Airports					5	5	3	11	5	3	1	6	6	4	6
Bomb Threats To:															
Aircraft			400	601	1145	2156	1383	1453	1853	1950	1229	1032	1121	1179	1084
Airports					212	288	239	387	449	1036	519	318	309	268	400

*Includes Air Carrier and General Aviation Hijackings

As of: 1/1/82

EXHIBIT 7

U.S. Department of Transportation
Federal Aviation Administration

Worldwide Criminal Incidents Involving Civil Aviation

Year	Deaths	Injuries	Total Incidents	Hijackings (Scheduled Air Carriers)	
				Foreign	U.S.A.
1968*	2	2	30	13	17
1969*	35	7	92	47	40
1970	92	32	82	56	25
1971	31	9	73	31	25
1972	159	96	88	31	27
1973	104	75	73	20	1
1974	170	59	62	19	3
1975	24	162	63	13	6
1976	227	200	55	13	2
1977	129	68	69	25	5
1978	81	147	71	17	8
1979	62	80	85	12	11
1980	4	75	100	17	21
1981	14	62	89	22	7

* *Statistical data prior to 1970 are approximations.*

As of: 1/1/82

EXHIBIT 8

26

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U.S. Department of Transportation
Federal Aviation Administration

Civil Aviation Security Scope and Effectiveness 1973-1981

- Over 3.7 Billion Persons Screened
- Over 5 Billion Pieces of Carry-on Items Inspected
- Over 47 Million Flights
- Over 23,000 Firearms Detected
- Over 9,000 Related Arrests
- 98 Hijackings or Related Crimes May Have Been Prevented by Airline and Airport Security Measures

As Of: 1/1/82

EXHIBIT 9

27

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U.S. Department of Transportation
Federal Aviation Administration

Civil Aviation Security
Airline Passenger Screening Results
January 1977-December 1981

	1977 Jan-June	1977 July-Dec	1978 Jan-June	1978 July-Dec	1979 Jan-June	1979 July-Dec	1980 Jan-June	1980 July-Dec	1981 Jan-June	1981 July-Dec
Persons Screened (Millions)	243.1	265.7	275.2	304.5	285.7	306.8	289.9	295.1	294.4	304.1
Weapons Detected										
Firearms	874	1160	962	1096	990	1171	1002	1020	971	1284
(1) Handguns	745	985	836	991	902	1060	940	938	915	1209
(2) Long Guns	24	40	34	33	29	26	17	19	7	37
(3) Other	105	135	92	72	59	85	45	63	49	38
Explosive/Incendiary Devices	2	3	1	2	3	0	1	7	8	3
Persons Arrested										
For Carriage of Firearms/ Explosives	370	440	404	492	469	591	520	511	534	653
For Giving False Information	23	21	31	33	21	26	11	21	34	15
Other Offenses Detected										
Narcotics	156	126	151	99	73	128	75	101	89	130
Illegal Aliens	474	483	723	605	845	844	938	662	843	578
Other	151	242	706	69	40	109	107	67	36	62

Source: Reports Of Passenger Screening Activities at U.S. Airports

As Of: 1/1/82

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EXHIBIT 10

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U.S. Department of Transportation
Federal Aviation Administration

Civil Aviation Security Weapon Detection Devices

Type	Basic Characteristics	Manufacturer	Units
Walk-Thru	Creates and Measures	Rens	645
Active	Deviations in Own	Infinetics	326
	Electric Field. Detects.	Metor	77
	Both Ferrous and Non-	Westinghouse	28
	Ferrous Metals.	Sperry Rand	11
		Solco	21
		Sentrie	199
		Philips	4
		Total	1311

As of: 1/1/82

EXHIBIT 11

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U.S. Department of Transportation
Federal Aviation Administration

Civil Aviation Security
X-Ray Baggage Inspection Systems

Characteristics: Small Dose X-Ray, Intensify Image Electronically, Display on TV

Operating Criteria: Meet FDA/BRH and State Health Standards
Distinguish 24 Gauge Wire

Limitations: Dependent on Diligence of Operators, Demands Constant Attention and Ability to Quickly Recognize Dangerous Articles

Systems In Use:

Astrophysics	400
Philips Electronic Instruments	132
Bendix	122
American Science & Engineering	58
New Security Concepts	30
Dennis & Miller	23
Picker	9
Total:	774

As of: 1/1/82

EXHIBIT 12

BEST DOCUMENT AVAILABLE

U.S. Department of Transportation
Federal Aviation Administration

Civil Aviation Security Basic Policies

PROGRAM ELEMENT	RESPONSIBILITY	ACTIONS
AIR CARRIERS	SECURE TRAVEL	• MAINTAIN RESPONSIVE SECURITY PROGRAMS • SCREEN PASSENGERS, CARRY-ON ITEMS • SECURE BAGGAGE, CARGO PROCEDURES • PROTECT AIRCRAFT
AIRPORTS	SECURE OPERATING ENVIRONMENT	• MAINTAIN RESPONSIVE SECURITY PROGRAMS • PROTECT AIR OPERATIONS AREA • PROVIDE LAW ENFORCEMENT SUPPORT
FAA	LEADERSHIP	• IDENTIFY AND ANALYZE THREAT • PRESCRIBE SECURITY REQUIREMENTS • COORDINATE SECURITY OPERATIONS • PROVIDE TECHNICAL ASSISTANCE • ENFORCE REGULATIONS
USERS	PROGRAM COSTS	• SECURITY FUNDED AS OPERATING COST OF SYSTEM

EXHIBIT 13

U.S. Department of Transportation
Federal Aviation Administration

Civil Aviation Security Regulatory Impact

	U.S.	FOREIGN*	TOTAL
Carriers	97	93	190
Airports	363	265	628
Aircraft	2,500	1,100	3,600
Flights Per Day	14,000	650	14,650
Screening Activity Per Day:			
Persons	1,652,000	110,000	1,762,000
Carry-On Items	1,659,000	100,000	1,759,000

*Estimated—accurate source documents not available

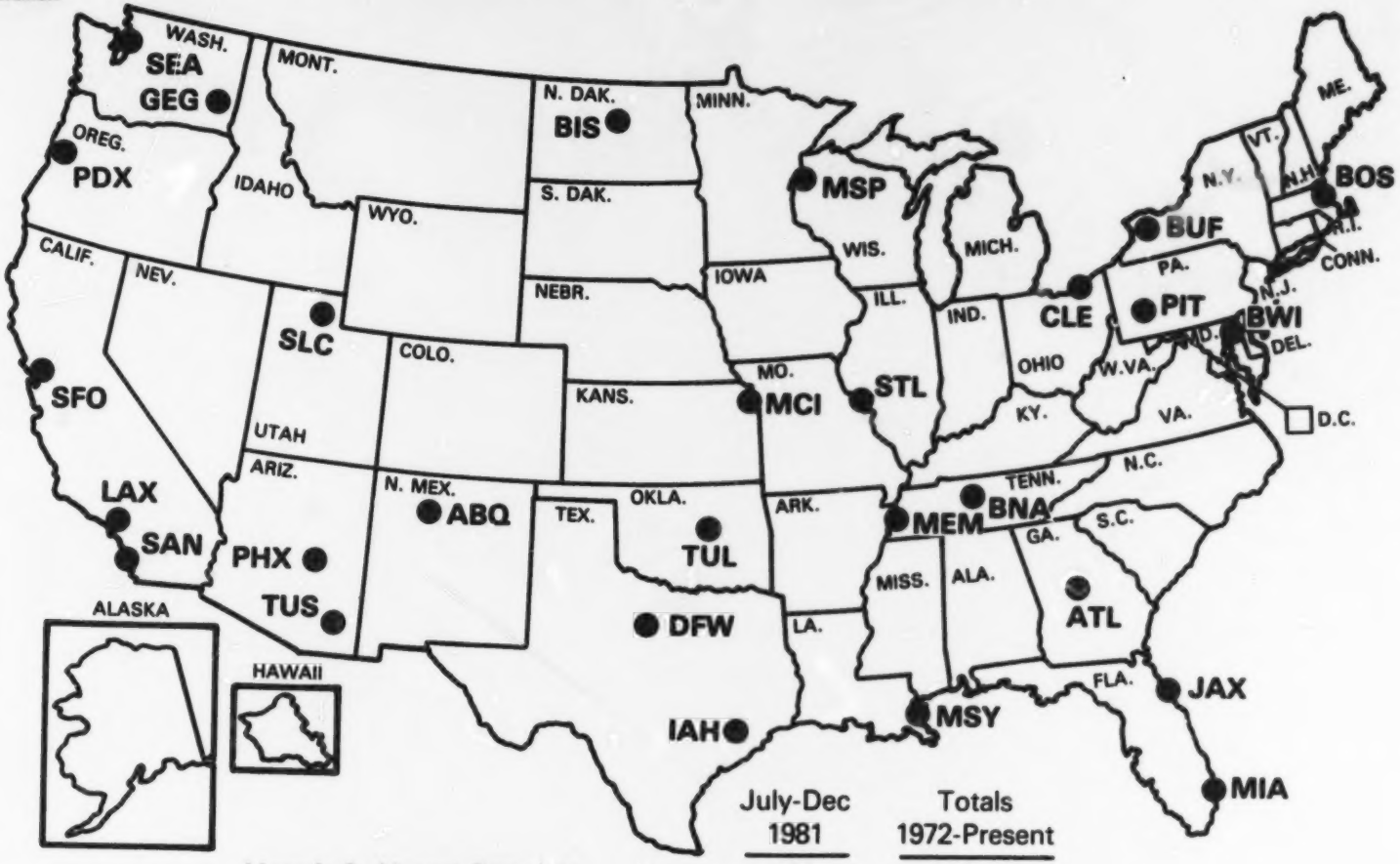
As of: 1/1/82

BEST DOCUMENT AVAILABLE

EXHIBIT 14

U.S. Department of Transportation
Federal Aviation Administration

FAA Sponsored Explosive Detection K9 Teams
Locations and Utilization



	July-Dec 1981	Totals 1972-Present
Aircraft & Airport Searches	424	6114
Explosive Items Detected	2	46
Missions in Local Communities	299	6351
Explosive Items Detected	6	140
Total Explosive Items Detected	8	186

As of: 1/1/82

EXHIBIT 15

BEST DOCUMENT AVAILABLE

U.S. Department of Transportation
Federal Aviation Administration

Civil Aviation Security Research and Development Explosive Detection

X-Ray Absorption

- One Unit Sent to FAA Technical Center for Testing to Gather Additional Airport Data
- One Unit Operational Evaluation Completed June 1981—Over 65,000 Baggage Articles Processed—
- Advanced Algorithm Being Evaluated

Thermal Neutron Activation

- Prototype Evaluated at Two Airports
- Data Analyzed Appears Promising for Air Cargo
- Evaluation of System for Air Cargo Conducted in November 1981
- System Being Modified

Nuclear Magnetic Resonance

- Test at Dallas-Fort Worth International Airport Proved Successful
- Action Initiated to Convert Research and Development Prototype to Operational Prototype

Walk by Explosive Detector

- Laboratory Evaluation Completed
- Industry Being Queried on Possibilities of Further Development

As of:1/1/82

EXHIBIT 16

34

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U.S. Department of Transportation
Federal Aviation Administration

Civil Aviation Security
Foreign Technical Assistance

Actions	Countries Participating
• FAA Technical Assistance Team Visits	30
• Aviation/Law Enforcement Officials Briefings	71
• Training Programs:	
— Aviation Security Course (Students)	79 (347)
— Antihijacking Tactics	56
— Ground Explosive Security	70
— Inflight Explosive Security	94
— Passenger Screening	33
• Analytical Studies Distribution	21

As of: 1/1/82

EXHIBIT 17

BEST DOCUMENT AVAILABLE

U.S. Department of Transportation
Federal Aviation Administration

CIVIL AVIATION SECURITY
COMPLIANCE AND ENFORCEMENT ACTIONS

U.S. AIR CARRIERS	1973	1974	1975	1976	1977	1978	1979	1980	1981
Warnings	—	—	329	270	276	266	283	184	465
Letters of Correction	152	124	128	110	109	145	102	100	52
Non Enforcement Actions	66	36	63	108	61	65	49	55	38
Civil Penalties (Amount)	43 ($42,850)	58 ($75,750)	56 ($45,300)	84 ($46,800)	43 ($66,700)	30 ($23,300)	26 ($18,075)	48 ($42,875)	35 ($72,547)
Investigations Closed	261	218	576	572	489	506	460	357	590
Investigations Pending					61	48	80	112	115
FOREIGN AIR CARRIERS									
Warnings	NO Regulation Applicable		0	0	0	0	14	4	3
Letters of Correction			0	12	11	11	6	4	0
Non Enforcement Actions			3	2	2	3	3	15	1
Civil Penalties (Amount)			0	0	0	0	0	0	2 ($25,000)
Investigations Closed			3	14	13	14	23	23	6
Investigations Pending					2	12	15	5	2
AIRPORTS									
Warnings Issued	—	—	125	141	137	168	80	83	63
Letters of Correction	40	68	83	68	53	65	53	91	14
Non Enforcement Actions	11	14	7	18	23	20	12	23	19
Civil Penalties (Amount)	1 ($1,000)	14 ($6,750)	16 ($14,450)	19 ($10,400)	12 ($3,500)	11 ($7,500)	19 ($15,150)	13 ($15,600)	23 ($21,675)
Investigations Closed	52	96	231	246	225	264	164	210	119
Investigations Pending					23	29	69	48	25
INDIVIDUALS									
Administrative Corrections	NO Regulation Applicable		1	27	81	68	617	1,469	2,168
Non Enforcement Actions			2	41	24	18	87	162	209
Civil Penalties (Amount)			1 ($25)	1 ($350)	4 ($2050)	9 ($1,925)	70 ($11,300)	155 ($27,210)	231 ($49,410)
Investigations Closed			4	69	109	95	774	1,786	2,608
Investigations Pending					14	45	392	475	398

As Of: 1/1/82

EXHIBIT 18